

# METHOD AND APPARATUS FOR COOLING SUBSTRATES

## Abstract of the Disclosure

Methods and apparatuses are provided for cooling semiconductor substrates prior to handling. In one embodiment, a substrate and support structure combination is lifted after high temperature processing to a cold wall of a thermal processing chamber, which acts as a heat sink. Conductive heat transfer across a small gap from the substrate to the heat sink speeds wafer cooling prior to handling the wafer (*e.g.*, with a robot). In another embodiment, a separate plate is kept cool within a pocket during processing, and is moved close to the substrate and support after processing. In yet another embodiment, a cooling station between a processing chamber and a storage cassette includes two movable cold plates, which are movable to positions closely spaced on either side of the wafer

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